

## 2SC2458 NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into four groups, O, Y, G and L, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base  
 TO-92 Plastic Package  
 Weight approx. 0.19g

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	50	V
Collector Emitter Voltage	$V_{CEO}$	50	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Base Current	$I_B$	50	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	125	°C
Storage Temperature Range	$T_s$	-55 to +125	°C

**Characteristics at  $T_{amb}=25^{\circ}C$** 

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6V, I_C=2mA$					
Current Gain Group O	$h_{FE}$	70	-	140	-
Y	$h_{FE}$	120	-	240	-
G	$h_{FE}$	200	-	400	-
L	$h_{FE}$	350	-	700	-
Collector Cutoff Current at $V_{CB}=50V$	$I_{CBO}$	-	-	0.1	$\mu A$
Emitter Cutoff Current at $V_{EB}=5V$	$I_{EBO}$	-	-	0.1	$\mu A$
Collector Emitter Saturation Voltage at $I_C=100mA, I_B=10mA$	$V_{CE(sat)}$	-	0.10	0.25	V
Transition Frequency at $V_{CE}=10V, I_C=1mA$	$f_T$	80	-	-	MHz
Noise Figure at $V_{CE}=6V, I_C=0.1mA, f=1KHz, R_g=10K\Omega$	NF	-	1.0	10	dB
Collector Output Capacitance at $V_{CB}=10V, f=1MHz$	$C_{OB}$	-	2.0	3.5	pF